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Activity 2 - Table Structures and Validation Practice Questions

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The Cinema Chain

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Task Scenario



You have been asked to create a database for the East Berkshire Cinema Multiplex. Currently all records are stored on a spreadsheet.



The surgery would like to be able to store and report data on how the cinema is used. The cinema has two screens, one has 500 seats, the other has 400 seats



The cinema has several films showing and it records the different types of film.



Films belong to categories U, PG, 12, 15 and 18.



Task Scenario



When people go to the cinema they can:



Pick the screen



Pick the date of the performance



Book tickets. The minimum number booked is 1 and the maximum booked is 5



Pick the seat type – standard seating is £10, Luxury seating is £15, Premium is £20



The Data

BookingID	ScreenID	FilmID	Booking Date	Film Title	Film rating	Screen Seats	Screen Name	Num Tickets	Seat ID	Seat Type	Seat Price
101	1	27	21/07/2020	Jaws	PG	500	A	4	1	Standard	£10



Table Structure - tblFilm

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Table Structure – tblFilm



You will also need information specific to each Film:



FilmID as a Primary Key



FilmTitle as short text



FilmRating as short text



Table Structure - tblFilm



Field names and datatypes are given on the next slide



Do not create an AutoNumbered Primary Key at this stage as you are given Primary Key values



Table Structure - tblFilm

tblFilm	



Table Validation

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Validation Information



Lots of validation has been included



One that has not is the length of a text field



You can include this if you wish



If you want to make sure an author name is no longer than 50 letters



Use `Len([AuthorName]) <= 50`



Validation - tblFilm

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A film record will not save if the film title is missing – presence check



To achieve this:



Use an Is Not Null validation check



On the FilmTitle column Validation Rule property field

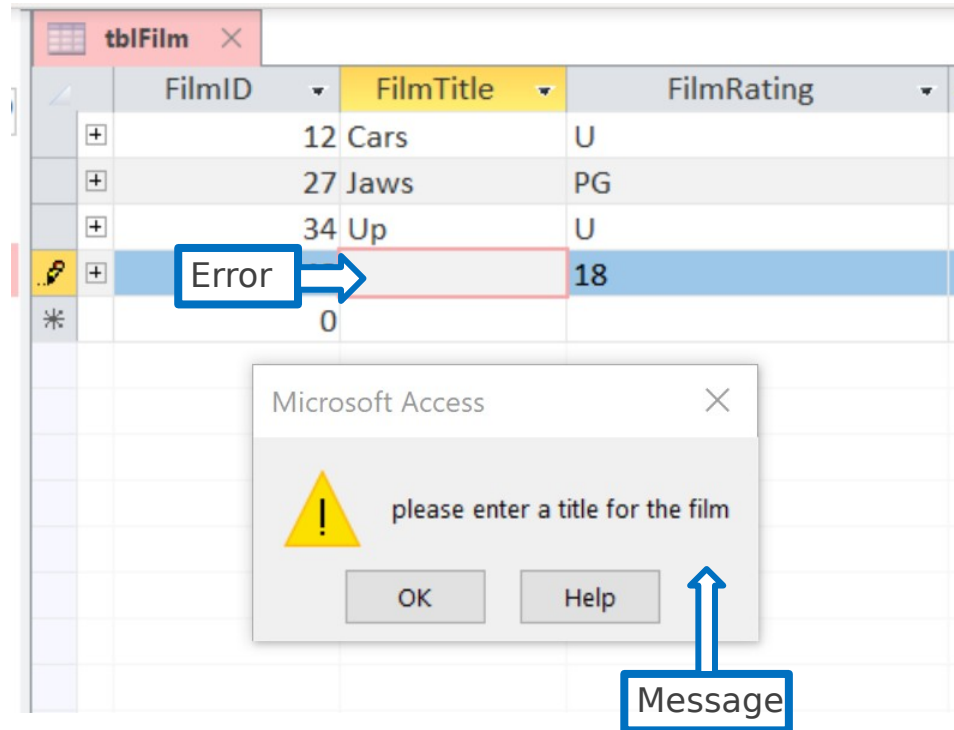


You can then add a suitable error message in the Validation text property field



A film record will not save if the film title is missing – presence check

ACCESS SCREENSHOT



VALIDATION CODE

General		Lookup
Field Size	255	
Format		
Input Mask		
Caption		
Default Value		
Validation Rule	Is Not Null	Validation Rule
Validation Text	please enter a title for the film	
Required	No	
Allow Zero Length	Yes	Message
Indexed	No	
Unicode Compression	Yes	
IME Mode	No Control	
IME Sentence Mode	None	
Text Align	General	



A film record will not save if the film rating is missing – presence check



To achieve this:



Use an Is Not Null validation check



On the FilmRating column Validation Rule property field

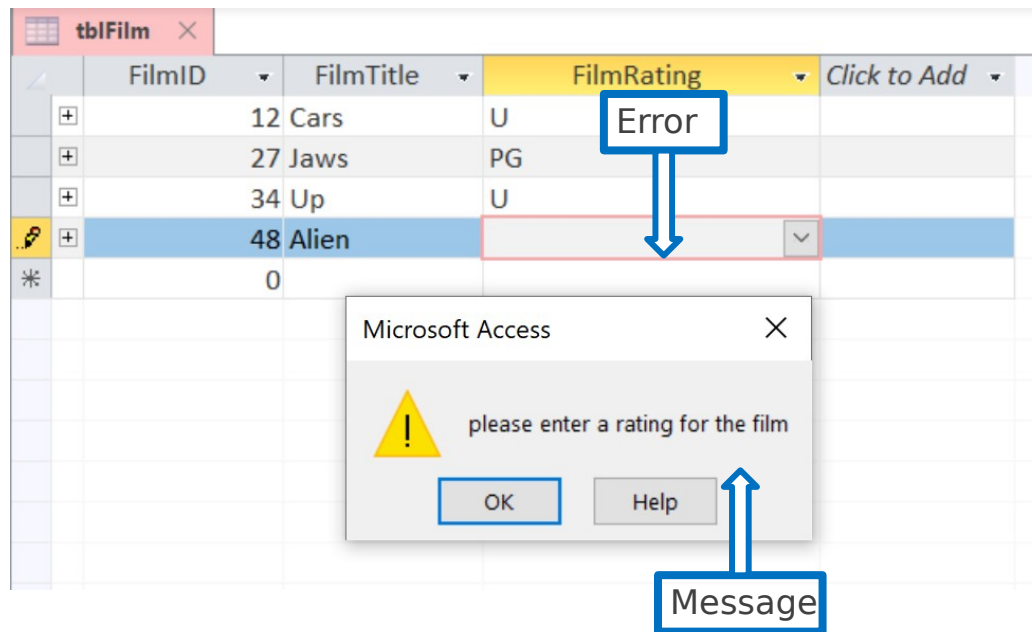


You can then add a suitable error message in the Validation text property field



A film record will not save if the film rating is missing – presence check

ACCESS SCREENSHOT



VALIDATION CODE

General		Lookup
Field Size	255	
Format		
Input Mask		
Caption		
Default Value		
Validation Rule	Is Not Null	
Validation Text	please enter a rating for the film	
Required	No	
Allow Zero Length	Yes	
Indexed	No	
Unicode Compression	Yes	
IME Mode	No Control	
IME Sentence Mode	None	
Text Align	General	



A film record will only save with a fixed film rating – value lookup



To achieve this go to the Lookup tab



Set the Display control of FilmRating to 'Combo Box'



Set the Row Source Type property to 'Value List'



Add the different Film Ratings into the Row Source

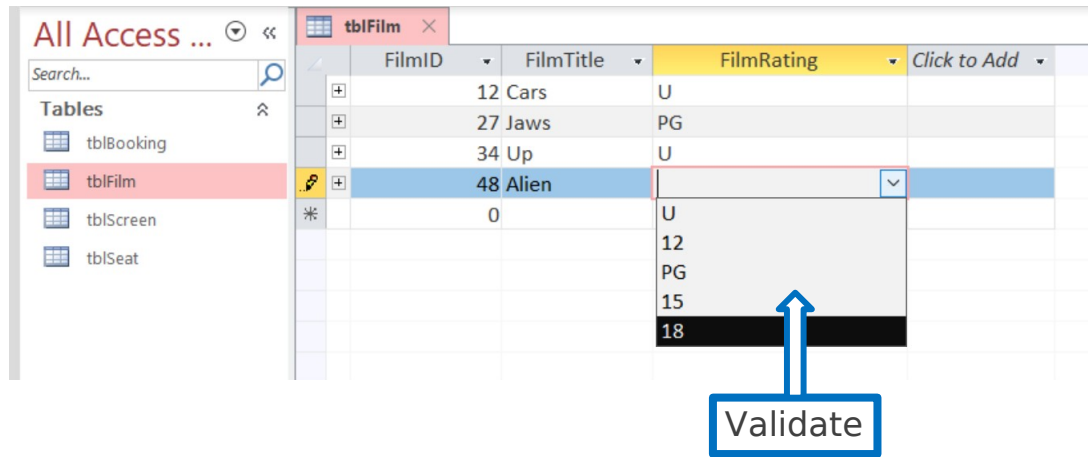


MAKE SURE that the *Limit To List* value is set to **YES**



A film record will only save with a valid film rating – value lookup

ACCESS SCREENSHOT



VALIDATION CODE

General		Lookup	
Display Control	Combo Box	Control	
Row Source Type	Value List	Type	
Row Source	"U";12;"PG";15;18		
Bound Column	1	Values	
Column Count	1		
Column Heads	No		
Column Widths	2.54cm		
List Rows	16		
List Width	2.54cm		
Limit To List	Yes	IMPORTANT!	



Glossary of Terms

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Glossary – Relational Database 1

Key Term	Definition
Attribute	Another name for a Column (or Field) in a Table in a Database.



Glossary - Normalisation

Key Term	Definition
Cascading Update	When any Updates made in one Table are reflected in other Tables that are Joined by a Foreign Key.



Glossary – SQL

Key Term	Definition
Query	The process of asking a Database a question to get a specific answer.



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